

Work Order ID 127937

127937

Page 1

December-17-14 2:01:49 PM

Item ID: D130-700-021

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bearpaw Wearplate

Start Date: 12/12/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/17/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 12-23

Tooling:

Date:

Run Start *NR1*

QC: Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

DSI 9434

A

DAS
27
9-89

MLJ 1504-09 (2)

100

Document Control

0.00

100

DC

Doc.Control -USB or Paperwork

DOCUMENT CONTROL

Memo

0.00

Photocopy bluefile and type labels per PPP D130-700-021 and DSI9434 001 CHG

DAS
46
9-89

APR 10 2015

105

Pick Kit

0.00

105

Packaging

Packaging

Memo

0.00

DAS
27
9-89

APR 08 2015

110

QC4- 100% Inspect kits for completeness

0.00

110

QC

Quality Control

Memo

0.00

DAS
46
9-89

APR 10 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 127937

December-17-14 2:01:49 PM

127937

Page 2

Item ID: D130-700-021 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bearpaw Wearplate
 Start Date: 12/12/14 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 12/17/14 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Packaging	0.00							
120									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D130-700-021 and DSI9434								
	Location: <u>129</u>								
	PPP Rev: _____								
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									

APR 10 2015

DAS
06
2-88

ML5 1504-13

MF
15-4-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

December-17-14 2:01:48 PM

127937

D130-700-021

Required Date: 12/17/14

Required Qty: 1.00

Comments: IPP Rev:A 10.12.09 as per dsi revA DD verf:EC

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

December-17-14 2:01:49 PM

Page 2

Work Order ID: 127937

127937

Parent Item: D130-700-021

D130-700-021

Parent Item Name: Bearpaw Wearplate

Start Date: 12/12/14

Required Date: 12/17/14

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

105

Each

3,672.000

12

12

DAS

27

9-89

DAS

27

9-89

MS21042L4

Locknut

DAS
46
9-89

APR 08 2015

Location

Loc Qty

Loc Code

FP001

42

m124231

42

GA

704

m127813

704

ST260a

2000

m130799

2000

ST305

926

426

426

m130922

500

m131803

m131804

12

NAS1149D0463J

Purchased

No

105

Each

6,559.000

12

12

DAS

27

9-89

DAS

27

9-89

NAS1149D0463J

WASHER

DAS
46
9-89

APR 08 2015

Location

Loc Qty

Loc Code

CA

397

M129682

397

GA

408

M129390

408

ST260a

1155

M129390

1155

ST269

4599

M129390

12

M130799

4587

m131624

12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Material									
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Offset/Setup									
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Training									
Transport									
Unapproved									

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DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D130-700 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D130-700 REV. 0

REF. TCCA STC: SH93-4
REF. FAA STC: SR00028NY
REF. EASA STC: EASA.IM.R.S.01389

The D130-700-021 Wearplate kit can be installed on D130-700-011 Bearpaw installations. The D3862-041 Wearplates should be installed on the D3167-1 Bearpaws as shown in Figure 1 on Sheet 2 of this Service Instruction. The Bearpaws should otherwise be installed on the skidtube per installation instructions IIN-D130-700 Rev A.

Customers with old style bearpaws will need to rework the counterbore on the bottom of the bearpaws per Figure 1 on Sheet 2 of this service instruction.

WEIGHT AND BALANCE

Installation	Weight	Lateral		Longitudinal	
		Arm	Moment	Arm	Moment
D130-700-021 Wearplate Kit	3.22 lb 1.46 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	159.8 in 4.05 m	514.6 in-lb 5.91 m-kg

PARTS LIST

QTY. -021	PART NUMBER	DESCRIPTION
X	D130-700-021	Wearplate Kit
2	D3862-041	Wearplate
4	AN4-12A	Bolt
8	AN4-15A	Bolt
12	NAS1149D0463J	Washer
12	MS21042L4	Nut or (MS21042-4)

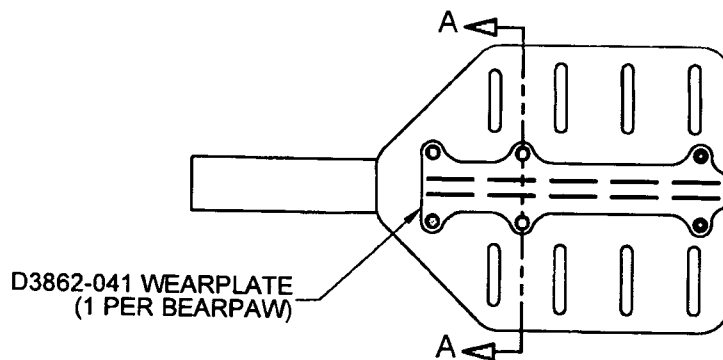
CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

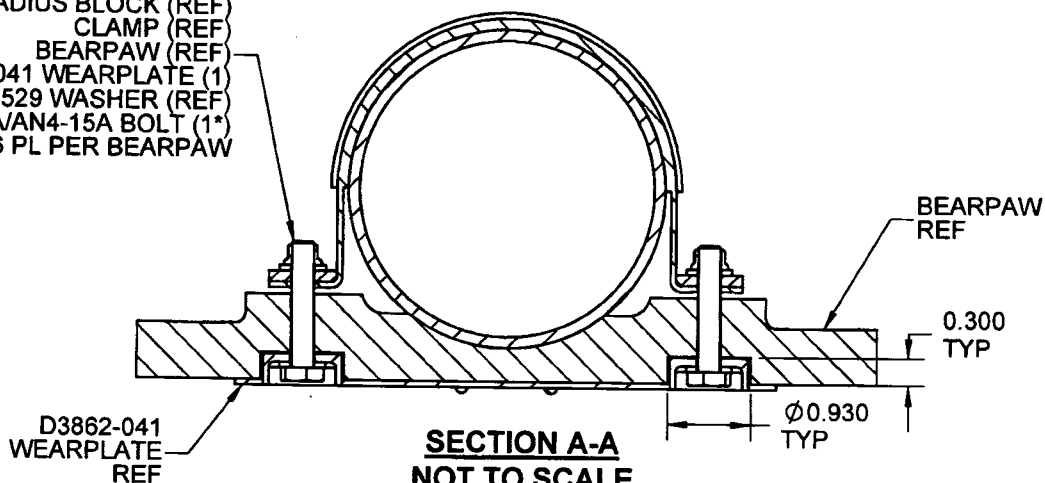
DATE: 09.01.15
CERT. NO.: SH93-4
ISSUE NO.: 7

A	NEW ISSUE	09.01.15
REV.	DESCRIPTION	BY DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN		
CHECKED		DRAWING NO. REV. A
MFG. APPR.	N/A	DSI 9434 SHEET 1 OF 2
APPROVED		TITLE SCALE
DE APPR.		WEARPLATE KIT NTS
DATE	09.01.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



BOTTOM VIEW

- MS21042L4 NUT (1)
- NAS1149D0463J WASHER (1*)
- D2274 RADIUS BLOCK (REF)
- CLAMP (REF)
- BEARPAW (REF)
- D3862-041 WEARPLATE (1)
- D2529 WASHER (REF)
- AN4-12A/AN4-15A BOLT (1*)
- 6 PL PER BEARPAW



* ADDITIONAL NAS1149D0463J WASHERS MAY BE INSTALLED UNDER NUTS TO ENSURE 1.5 - 4 THREADS IN SAFETY ON BOLTS. ALTHOUGH NOT GENERALLY NECESSARY, IT IS ALSO ACCEPTABLE TO REPLACE THE AN4-12A/15A BOLTS WITH LONGER OR SHORTER AN4 BOLTS, IF REQUIRED.

FIGURE 1: D130-700-021 WEARPLATE KIT

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 09.01.15
CERT. NO.: SH93-4
ISSUE NO.: 7

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9434	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE KIT	NTS
DATE	09.01.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D130-700 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D130-700 REV. 0

REF. TCCA STC: SH93-4
REF. FAA STC: SR00028NY
REF. EASA STC: EASA.IM.R.S.01389

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WEIGHT AND BALANCE

Installation	Weight	Lateral		Longitudinal	
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8	AN4-15A	Bolt
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12	MS21042L4	Nut or (MS21042-4)

DAS
46 APR 10 2015
9-89

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)

DATE: 09.01.15
CERT. NO.: SH93-4
ISSUE NO.: 7

A	NEW ISSUE		09.01.15
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9434	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE KIT	NTS
DATE	09.01.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	